CLAIMS

What is claimed is:

1. A system for allowing items related to an example item to be found, comprising:

at least one relationship agent contained in a first electronic device that automatically builds relationship information between different items;

an item relationship database formed by the at least one relationship agent, the database including the relationship information between different items;

a synchronizer that transfers the item relationship database, or a portion thereof, from the first electronic device to the second electronic device; and

logic embedded in the second electronic device that uses the relationship information in the item relationship database to find items related to the example item.

2. The system of claim 1, wherein the first electronic device is a personal computer, and the second electronic device is a personal digital assistant.

3. The system of claim 1, wherein the second electronic device is a system with low processing power and limited storage capacity.

4. The system of claim 1, further comprising:

a user interface mechanism on the second electronic device that allows users to ask for items related to the example item; and

a display on the second electronic device that illustrates the items related to the example item when the user interface mechanism is invoked.

5. The system of claim 1, further comprising a supporting database to the at least one relationship agent, which allows the at least one relationship agent to make a query into the supporting database for finding the relationship information of a particular item.

6. The system of claim 1, wherein the relationship information is built based on criteria, including at least one of temporal relevance, content relevance and people relevance.

7. The system of claim 1, wherein the item relationship database includes a document table for storing type and location information of particular items and a document relation table for storing correlation among sets of different items and a description of the type of relationship for each set.

8. The system of claim 1, wherein items related to a set of example items are found.

9. The system of claim 1, wherein the synchronizer allows transfer of an item relationship database, or a portion thereof, from the second electronic device to the first electronic device.

10. The system of claim 1, further comprising a user interface front end to the item relationship database that allows users to modify the relationship information stored in the item relationship database, set their own relationship information, or set the rules for making the relationship information for the at least one relationship agent.

11. A handheld device that supports query by example, comprising:

an item relationship database that stores pre-computed relationship information between different items;

a user interface mechanism that allows a user to ask for item related to an example item;

logic that uses the relationship information in the item relationship database to find items related to the example item; and

a display that illustrates the items related to the example item when the user interface mechanism is invoked.

12. The handheld device of claim 11, wherein the handheld device has low processing power and limited storage capacity as compared to a personal computer.

13. The handheld device of claim 11, wherein the pre-computed relationship information is built based on criteria, including at least one of temporal relevance, content relevance and people relevance.

14. The handheld device of claim 11, wherein the item relationship database includes a document table for storing type and location information of particular items and a document relation table for storing correlation among sets of different items and a description of the type of relationship for each set.

15. The handheld device of claim 11, further comprising a user interface front end to the item relationship database that allows users to modify the pre-computed relationship information, set

their own relationship information on top of the pre-computed relationship information, or set the rules for making the relationship information.

16. A method of finding items related to an example item in a first computing device, the method comprising:

building relationship information between different items in a second computing device;

forming an item relationship database that stores the relationship information in the second computing device;

transferring the item relationship database, or a portion thereof, from the second electronic device to the first electronic device; and

using the relationship information in the item relationship database to find the items related to the example item in the first electronic device.

17. The method of claim 16, wherein the first electronic device is a system with low processing power and limited storage capacity.

18. The method of claim 16, further comprising:

providing a user interface mechanism on the first electronic device that allows a user to ask for items related to the example item; and

illustrating the items related to the example item when the user interface mechanism is invoked.

19. The method of claim 16, further comprising making a query into a supporting database for finding the relationship information of a particular item.

20. The method of claim 16, wherein the relationship information is built based on criteria, including at least one of temporal relevance, content relevance and people relevance.

21. The method of claim 16, further comprising transferring an item relationship database, or a portion thereof, from the first electronic device to the second electronic device.

22. The method of claim 16, further comprising providing a user interface front end to the item relationship database that allows users to modify the relationship information stored in the item relationship database, set their own relationship information, or set the rules for making the relationship information.

23. A computer readable medium for use in conjunction with a first computing device and a second device for finding items related to an example item in a first computing device, the computer readable medium including computer readable instructions encoded thereon for:

building relationship information between different items in a second computing device;

forming an item relationship database that stores the relationship information in the second computing device;

transferring the item relationship database, or a portion thereof, from the second electronic device to the first electronic device; and

using the relationship information in the item relationship database to find items related to the example item in the first electronic device.

24. The computer readable medium of claim 23, wherein the first electronic device is a system with low processing power and limited storage capacity.

25. The computer readable medium of claim 23, further comprising computer readable instruction encoded thereon for:

providing a user interface mechanism on the first electronic device that allows a user to ask for items related to the example item; and

illustrating the items related to the example item when the user interface mechanism is invoked.

26. The computer readable medium of claim 23, further comprising computer readable instruction encoded thereon for making a query into a supporting database for finding the relationship information of a particular item.

27. The computer readable medium of claim 23, wherein the relationship information is built based on criteria, including at least one of temporal relevance, content relevance and people relevance.

28. The computer readable medium of claim 23, further comprising computer readable instruction encoded thereon for transferring an item relationship database, or a portion thereof, from the first electronic device to the second electronic device.

29. The computer readable medium of claim 23, further comprising computer readable instruction encoded thereon for providing a user interface front end to the item relationship database that allows users to modify the relationship information stored in the item relationship database, set their own relationship information, or set the rules for making the relationship information.